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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,860	01/19/2004	Ren-Ting Hou	WISP0043USA	1859

27765 7590 06/29/2006

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EXAMINER

DANG, KHANH

ART UNIT	PAPER NUMBER
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2111

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/707,860	HOU ET AL.	
	Examiner	Art Unit	
	Khanh Dang	2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 and 15-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 10-12 is/are rejected.
- 7) ☒ Claim(s) 2-9, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of the species as shown in Fig. 2 in the reply filed on 5/12/2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 1-4 and 15-20 have been withdrawn from further consideration by Applicants as being directed to non-elected species.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "at least first standard communication interface slot" (claim 5, line 13); "power management chipset" (claim 6, lines 8-9); "one first monitoring end" (claim 6, line 8); "one second monitoring end" (claim 6, line 17-18); "golden finger slot" and "matched golden finger" (claim 12); "switching button" (claim 13); and "first power management end set" and second power management end set" (claim 14) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

In addition, all boxes in Figs, 1-3 must be labeled.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

Art Unit: 2111

prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12, the phrase "extending ports consist of a golden finger slot and a matched golden finger" is unclear, since it is unclear which of the first and second ports of the motherboard and extended board, respectively, consists of a golden finger slot or a golden finger. Further, it is not ascertained as to how a "port" can be a golden finger. A port is not a finger.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

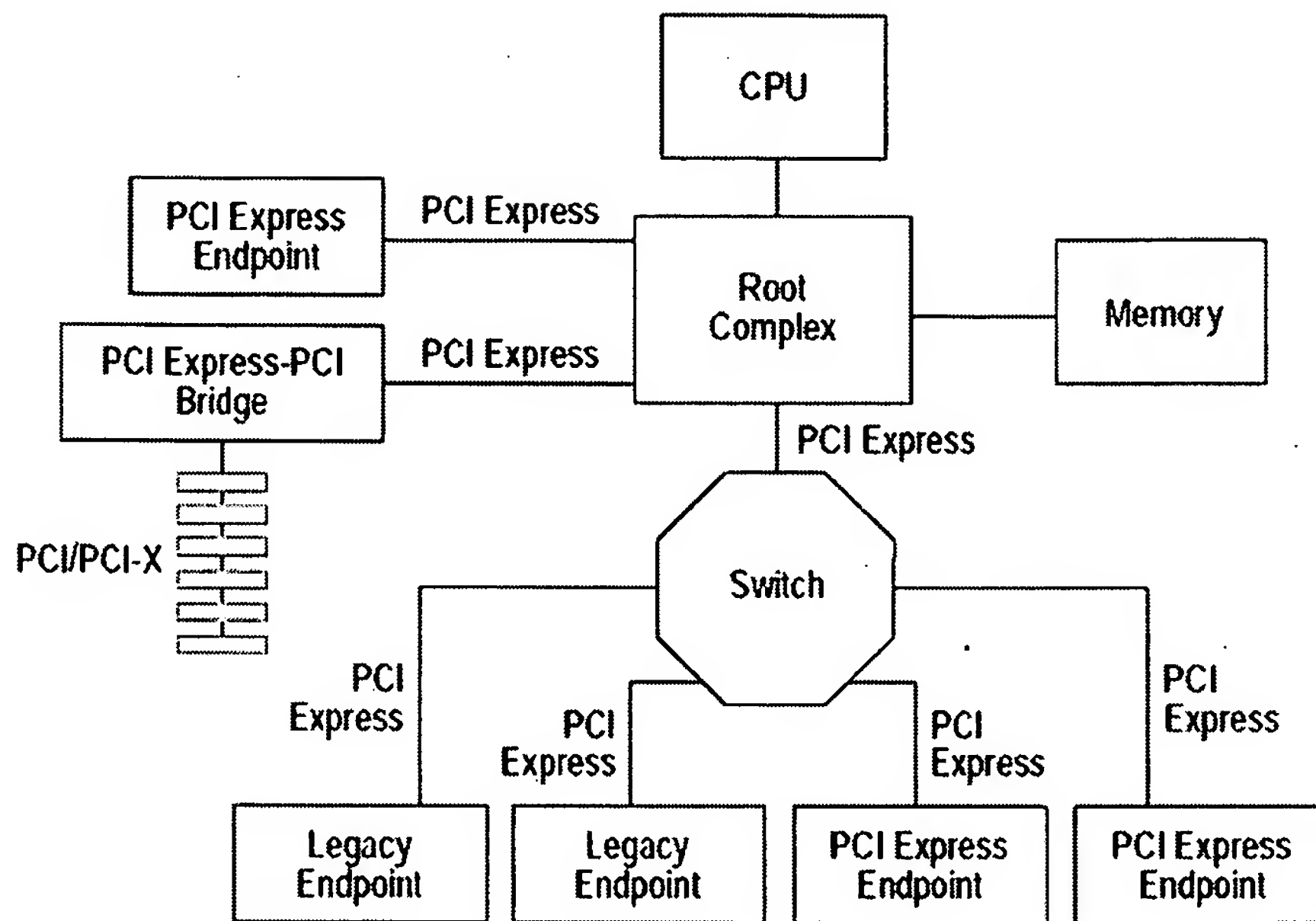
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 5, 10, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by the PCI Express Base Specification, Revision 1.0, hereinafter referred to as PCI Express.

With regard to claim 5, PCI Express discloses an extendable computer system comprising: a motherboard for maintaining the functionality of the computer system (it is clearly inherent that computer system based on PCI Express must be laid out on a motherboard or main board. As shown below at Figs. 1-2, on page 31, of the PCI Express, the PCI Express based computer system including a CPU, buses, and peripheral components must be placed on a motherboard or main board)



, the motherboard comprising: a system chipset for supporting a specification of a first interface (the Root Complex Port Chip Set in PCI Express manages the PCI Express fabric, and supports PCI Express interface); at least one first standard communication interface slot electrically connected to the system chipset for electrically connecting at least one peripheral device to the computer system (it is clear from the PCI Express, Figure 1-2 above that each PCI Express Endpoint comprises a PCI Express slot for a plug-in PCI Express card or peripheral device); and a first extending port electrically connected to the system chipset for extending functionality of the motherboard (it is clear that the PCI Express bus of the motherboard connecting the Root Complex chipset to the PCI Express-PCI/PCI-X bridge has a first port for providing connection to second port of PCI Express-PCI/PCI-X bridge for the motherboard to extend its functionality to the PCI/PCI-X legacy peripherals); and an extended board capable of electrically connecting to the motherboard for extending the functionality of the

Art Unit: 2111

computer system (PCI Express-PCI/PCI-X bridge as shown above in Fig. 1-2, i.e. the Intel 41210 PCI Express-PCI/X bridge, cited below, is capable of electrically connecting to the motherboard for extending the functionality to the legacy PCI-X peripherals), the extended board comprising: a second extending port capable of electrically connecting to the first extending port for electrically connecting the extended board to the system chipset of the motherboard (it is clear that the PCI Express bus of the motherboard connecting the Root Complex chipset to the PCI Express-PCI/PCI-X bridge has a first port for providing connection to second port of PCI Express-PCI/PCI-X bridge for the motherboard to extend its functionality to the PCI/PCI-X legacy peripherals), wherein at least one end of the second extending port is in accordance with the specification of the first interface (it is clear from the PCI Express, Fig. 1-2, one end of the PCI Express-PCI/PCI-X bridge supports PCI Express interface); a second interface converter electrically connected to the at least one end of the second extending port for converting the first interface into a second interface (it is clear that the PCI-Express-PCI/PCI-X bridge, as its name implies, provides an interface converter connected to one end of the second port for converting the PCI Express interface into a PCI-X interface); and at least one second standard communication interface slot electrically connected to the second interface converter for electrically connecting at least one peripheral device to the computer system (it is clear from the PCI Express, Figure 1-2 above that each PCI-X comprises a PCI-X slot for a plug-in PCI-X card or peripheral device), wherein the at least one second standard communication interface slot is in accordance with the specification of the second interface (the PCI-X slot for a plug-in PCI card must be in full

Art Unit: 2111

compliance with a so-called "specification of the second interface," which is a PCI-X specification).

With regard to claim 10, as discussed above, the first interface is a PCI Express interface, the second interface is a PCI-X interface, and the second interface converter is a PCI Express/PCI-X interface converter.

With regard to claim 11, it is clear from the PCI Express, Fig. 1-2, that the Root Complex is in the North Bridge chipset connected the CPU. Note that the Root Complex chipset can be in either the North Bridge chipset or a South Bridge chipset (see PCI Express: Interconnect of the Future from Anandtech, cited below).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

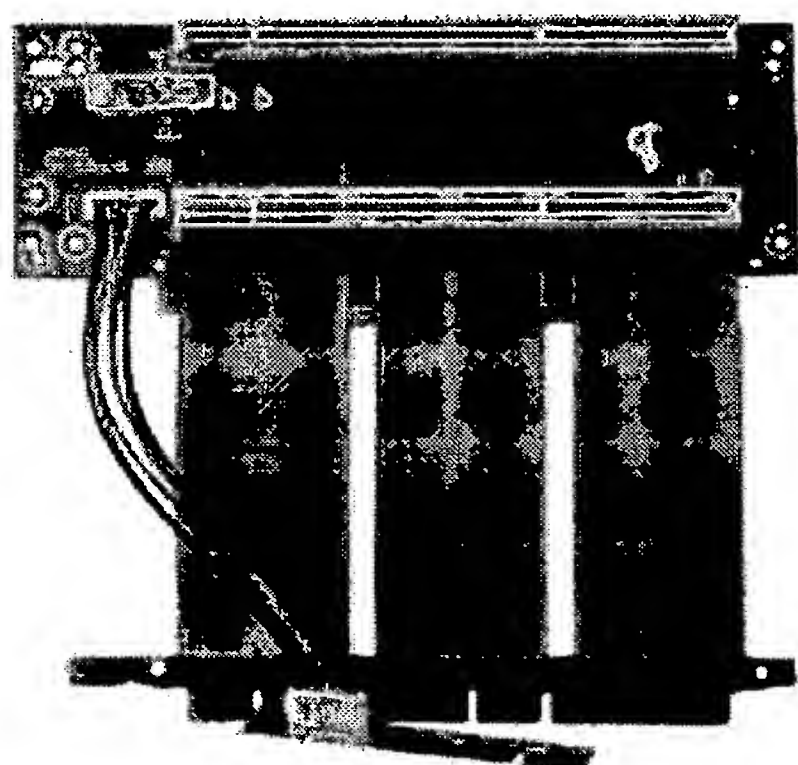
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over PCI Express in view of the following.

PCI Express discloses the claimed invention including the use of an extended board connected to the motherboard.

PCI Express does not disclose that extended board connected to the motherboard using a matched "golden finger," and motherboard are aligned in the same plane through the connection of the extending ports.

However, the use of a matched gold finger consisting of a gold finger slot and gold finger for providing a connection between the motherboard and the extended board, particular in riser card/board, is old and well-known as evidenced from Garreau (6,769,035) or Rackmountmart.com. Garreau discloses the use of gold finger 30 (Fig. 1A) mated with gold finger slot (Fig. 2) for providing connection between a motherboard and an extended board. Rackmontmart.com also discloses the use of PCI Express gold finger mated with gold finger slot on a motherboard (motherboard slot-6 (PCI-e X16), as shown below:



Note that with the matched gold finger consisting of a gold finger and a gold finger slot provided by either Garreau or Rackmountmart, extended board and the motherboard are aligned in the same plane through the connection of the extending ports, particularly with the use of a riser card/board.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the motherboard and extended board of PCI Express with a matched gold finger consisting of a gold finger and a gold finger slot is old and well-known, as evidenced from Garreau (6,769,035) or Rackmountmart.com; and

Art Unit: 2111

providing a matched gold finger to PCI Express only involves ordinary skill in the art for the purpose of providing a connection between the motherboard and the extended board.

Allowable Subject Matter

Claims 6-9, 13, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

US Patent Nos. 6,769,035 to Garreau, US PG Pub Nos. 2005/0120153 to Perez et al., 2005/0034045 to Lueck et al., 2004/0003154 to Harris et al., and 2004/0019729 to Kelley et al. are cited as relevant art.

Intel 41210 Product Overview, Intel Demos PCI Express Chips, PCI Express Extensions Beyond the Motherboard Chipset, Selecting PCI Express IP for Your Design, PCI Express: Interconnect of the Future, PCI-X Bus Description, PCI-Express Bus Description, Intel Raid Controller SRCSAS18E Product Brief, and Rackmountmart.com are also cited as relevant art.

Any inquiry concerning this communication should be directed to Khanh Dang at telephone number 571-272-3626.



**Khanh Dang
Primary Examiner**